Universal Waste Compliance Guide for Tanning Salons

Did you know that most tanning salons generate hazardous waste at least once a year?

This may be news to a lot of people because when most people think of hazardous waste, they think of chemical plants, manufacturing facilities, and laboratories. But tanning salons may generate hazardous waste in the form of tanning lamps that are located in tanning beds, booths, or other tanning devices which produce ultraviolet (UV) light. While there are literally hundreds of different kinds of tanning lamps, they all contain mercury as an integral part of their function and at this time no suitable replacement has been found.

Lamps used in tanning equipment contain an average concentration of 17 mg of mercury per lamp, with a high of 20 mg and a low of 5.5 mg[1].

Many tanning salons replace their tanning lamps once per year while others replace them two or more times a year. Lamps lose their ability to produce a reasonable amount of UV light over time so they must be replaced with new lamps to effectively and efficiently produce a tan. A tanning bed contains between 45 and 90 lamps[2] and salons usually have more than one tanning bed which adds up to a lot of lamps replaced in each salon each year!

Are mercury containing lamps regulated?

Federal and state hazardous waste regulations exist that apply to the management of fluorescent lamps. These laws and guidelines apply to all fluorescent lamps, including those used in tanning salons, and other lamps that contain mercury. These regulations can be found in Title 40 of the Code of Federal Regulations (CFR) Parts 261, 262, 268 and 273. Virginia DEQ has a few other state specific requirements for mercury containing lamps that can be found in Title 9 of the Virginia Administrative Code at Section 20-60-273.

Under the hazardous waste regulations, a generator of a waste stream must determine whether or not that specific waste meets the definition of a hazardous waste (*See* 40 CFR 262.11). If the generator determines the lamp meets the definition of a hazardous waste due to the mercury content, the generator has the option of managing the lamps as a hazardous waste or as a "universal waste." Universal wastes are a subset of hazardous wastes and the universal waste regulations were created to promote recycling by reducing the management requirements of certain hazardous wastes such as mercury containing light bulbs (*See* 40 CFR 273, Subpart B). As a "best management practices" policy, Virginia DEQ encourages generators to recycle all mercury containing lamps, including any non-hazardous lamps, under the universal waste regulations.

What are the requirements for managing mercury containing lamps as universal waste?

The universal waste regulations create two groups of universal waste generators, called handlers, which are based on the amount of universal waste accumulated on-site. Universal waste handlers are not just those who generate or produce universal waste, but also those who receive universal waste from other handlers. Small quantity handlers accumulate less than 5,000 kilograms (or about 11,000 pounds) of universal waste at any one time on-site. Large quantity handlers accumulate on-site 5,000 kilograms or more of universal waste at any one time.

Tanning salons will most likely qualify as small quantity handlers. Since 5,000 kilograms equates to approximately 17,000 four-foot mercury containing lamps,[3] it is unlikely that a salon will generate or accumulate that many lamps at any one time!

[1] IMERC Fact Sheet "Mercury Use in Lighting" http://www.newmoa.org/prevention/mercury/imerc/factsheets/lighting.pdf

[2] New Hampshire Pollution Prevention Program, Waste lines, October 2006 http://des.nh.gov/organization/commissioner/pip/newsletters/wastelines/documents/06oct.pdf

[3] Illinois EPA Fact Sheet "How to Manage Used Fluorescent and High Intensity Discharge Lamps as Universal Wastes" http://www.epa.state.il.us/land/fluorescent-lamps

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Universal waste handlers are the ones that benefit most from the universal waste regulations, making it easier for them to store universal waste and send it to a recycling facility. Some of the main requirements for small quantity handlers (SQHs) of mercury containing lamps are listed below:

- Universal waste lamps can only be accumulated on-site for up to one year.
- Employees at SQH facilities must be trained in basic handling and emergency information.
- SQHs must manage lamps in a way that prevents releases to the environment.
- Mercury containing lamps must be accumulated in containers that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps.
- Containers and packages of universal waste lamps must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage.
- SQHs of universal waste must immediately clean up and place in a container any lamp that is broken.
- Each container or package in which lamps are contained must be labeled clearly with one of the following phrases: "Universal Waste—Lamp(s)," or "Waste Lamp (s)," or "Used Lamp(s)" and with the date the first waste bulb waste collected.
- SQHs are prohibited from sending universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.

SQHs are not required to notify Virginia DEQ of their universal waste management activities. Additionally, SQHs have no recordkeeping requirements under the universal waste requirements. However, it is a good best management practice for SQHs to keep track of where their universal waste shipments go.

Because tanning lamps contain mercury, care should be used if a bulb is broken to prevent contact with the dust or vapor exposure. Tanning salons should make sure their employees know how to properly handle lamps to avoid breakage, and how to clean up and manage lamps if they do break.

What are the requirements for those who do *not* manage their spent mercury containing lamps as universal waste?

If a facility chooses **not** to manage their mercury-containing lamps as universal wastes, the lamps become fully regulated as a hazardous waste and are subject to the applicable management requirements found in 40 CFR Parts 261, 262, 265, and 268.

Lamp Management Resources

The Association of Lighting and Mercury Recyclers (ALMR) has prepared a training module for generators and handlers of universal waste lamps that can be found at the following web site: http://www.almr.org/1hourtrainingmodule.pdf. Page 7 has information about how to clean up an accidentally broken mercury containing lamps.

The Pollution Prevention group within Virginia DEQ has put together a number of resources with respect to fluorescent lamp recycling that can be found by going to the following web site: http://www.deq.virginia.gov/p2/mercury/fluorescents/homepage.html. There are many companies that can provide packing, shipping and recycling services for your tanning lamps. A list of some of these companies can be found under the Table of Contents on the right hand side of the above web site.

ALMR has also put together a list of companies that advertise that they recycle or handle spent mercury containing lamps. This list can be found here: http://www.nema.org/lamprecycle/recyclers.html

Questions?

Feel free to contact Christine Arcari, Virginia DEQ's Universal Waste Coordinator at (804) 698-4219 or cjarcari@deq.virginia.gov or your Regional DEQ Office if you still have questions about hazardous waste generation at tanning salons. Your Regional Waste Compliance Program contact can be located by accessing the following web site and clicking on your location on the map of Virginia: http://www.deq.virginia.gov/regions/homepage.html.